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THREE NEW ANDEAN SPECIES OF LEPANTHES

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WHILE COMPARING some orchids in the Gray Herbarium the authors noticed three specimens which resembled small vines. On careful study they proved to be three new species of *Lepanthes*, although one of them was originally labelled *L. Nummularia* by mistake. The work of comparing the three species with material or descriptions of all previously known species of *Lepanthes* was greatly facilitated by reference to the herbarium of Professor Oakes Ames, to whom the authors are further indebted for the invitation to publish in this series. The three new species may be characterized as follows:

***Lepanthes pseudocaulescens* Smith & Harris, sp. nov.** Herba minuta. Rhizoma repens, cauliforme. Caules perbreves, monophylli, vaginis infundibuliformibus omnino tecti. Folia suborbicularia, 3.5–5 mm. longa, setoso-ciliata. Pedunculus uni-vel bi-florus. Sepala ovata, acuta; lateralia circiter per partem tertiam connata. Petala in lobos elongatissime triangulares transverse extensa. Labellum late lunatum, retusum, auriculis lateralibus reflexis.

Plant minute, doubtless epiphytic, its symmetry strongly dorsi-ventral. Rhizome creeping, stem-like, 5–12 cm. long, filiform, simple or sparingly branched, bearing

infundibuliform sheaths with setose-ciliate mouths. Leaf solitary at the summit of the very short stem, suborbicular, entire, 3.5–5 mm. long, abruptly narrowed at base into the short petiole, 3-nerved, setose-ciliate, apparently fleshy in living material. Peduncle shorter than the leaf, solitary, 1- to 2-flowered, almost completely concealed by the vaginiform setose bracts. Flowers small, glabrous, dark red in the dried specimens. Lateral sepals ovate, acute, 3 mm. long, 3-nerved, connate for about one-third their length. Dorsal sepal similar but broader. Petals 0.5 mm. long, 4 mm. wide, transversely extended into two equal narrowly triangular acuminate lobes. Labellum broadly lunate, 3-nerved, retuse, its lateral auricles reflexed. Column slenderly cylindrical. Anther terminal.

COLOMBIA, forests of the highlands of Popayan, altitude 1700–1800 m., July 1901, *Lehmann no. B. T. 352*. (TYPE in Gray Herb. DUPLICATE TYPE in Herb. Ames).

ILLUSTRATION: 1, plant drawn natural size. 2, section of rhizome with leaves ($\times 5$). 3, flower ($\times 10$). 4, labellum, as seen from above ($\times 10$). 5, column, as seen from the side ($\times 10$).

***Lepanthes polygonoides* Smith & Harris, sp. nov.**
Habitus illum *L. pseudocauliscentis* simulans. Folia elliptica vel ovato-elliptica, 6–11 mm. longa, utrinque glaberrima. Pedunculus uni-vel bi-florus. Sepala elliptica, late acuta; lateralia circiter per duas tertias connata. Petala minuta, rhomboidea, margine minutissime ciliata. Labellum minutissimum, columna omnino obtectum, late ovatum.

Rhizome creeping, stem-like, 25–40 cm. long, simple or sparingly branched, bearing infundibuliform sheaths with setose-ciliate mouths. Leaf solitary at the summit of the very short stem, elliptic or ovate-elliptic, entire, 6–11 mm. long, 5-nerved with all five nerves starting within the sheath and continuing nearly to the apex, en-

tirely glabrous, apparently somewhat fleshy in living material. Peduncle shorter than the leaf, solitary, 1- to 2-flowered, almost completely concealed by the vaginiform bracts. Flowers small. Lateral sepals elliptic, broadly acute, 1.75 mm. long, 1-nerved, connate for about two-thirds their length. Dorsal sepal similar but broader, 3-nerved. Petals minute, 0.25 mm. long, 0.5 mm. wide, rhombic, minutely ciliate. Labellum very small and completely hidden beneath the column, ovate, 2-nerved, 0.4 mm. long. Column short-cylindric and strongly compressed with two erect wings at the summit. Anther terminal.

ECUADOR, "Andium Quitensium, crescit in sylvis opacis ad arborum truncos, alt. 7000 pedes, Floret. Septembri, Octobri. 21 Januar 1856," *Jameson 88*. (TYPE in Gray Herb.)

ILLUSTRATION: 1, plant drawn natural size. 2, section of rhizome with leaves ($\times 5$). 3, flower ($\times 10$). 4, column and labellum as seen from below ($\times 10$).

Lepanthes saccosepala *Smith & Harris, sp. nov.*
Habitus illum *L. pseudocauliscentis* simulans. Folia elliptica, 4-11 mm. longa, utrinque dense setosa. Pedunculus uni- vel bi-florus. Sepala lateralia lanceolata, fere ad apicem connata. Sepalum dorsale orbiculatum, saccatum. Labellum subreniforme, apiculatum.

Rhizome creeping, stem-like, 15-25 cm. long, simple or sparingly branched, bearing infundibuliform sheaths with setose-ciliate mouths. Leaf solitary at the summit of the very short stem, elliptic, entire, 4-11 mm. long, 5-nerved with the outer pair of nerves branching from the inner pair at a point about one-third the distance from the base of the leaf to the apex and rejoining them shortly above the middle, densely setose, apparently somewhat fleshy when fresh. Peduncle much shorter than the leaf, solitary, 1- to 2-flowered. Flowers small, gla-

brous, reddish in the dried specimens. Lateral sepals lanceolate, 4 mm. long, 1-nerved, connate almost to apex. Dorsal sepal orbicular with margin inrolled, 4 mm. long, 5-nerved, saccate. Petals ovate-lanceolate, asymmetric, much produced on the side toward the lip, 1-nerved. Labellum subreniform, 1-nerved, apiculate. Column slenderly clavate. Anther terminal.

ECUADOR, in moss, forests on west flank of Pichincha, 7000-8000 ft., *Jameson s.n.* (TYPE in Gray Herb.)

ILLUSTRATION: 1, section of rhizome with leaf ($\times 5$). 2, flower ($\times 10$). 3, labellum, as seen from above ($\times 10$). 4, column, as seen from the side ($\times 10$).

The small number of vine-like species of *Lepanthes* may be keyed as follows:

1. Petals rhombic, broader than long.
 2. Labellum broadly lunate, not hidden by the column.
 1. *L. pseudocaulescens*
 2. Labellum ovate, completely hidden by the column.
 2. *L. polygonoides*
1. Petals not rhombic, longer than broad.
 3. Labellum neither apiculate nor 3-lobed.
 3. *L. pilosella*
 3. Labellum either apiculate or 3-lobed.
 4. Dorsal sepal oblong.
 5. Petals oblong. 4. *L. Nummularia*
 5. Petals triangular. 5. *L. dasyphylla*
 4. Dorsal sepal broadly ovate to suborbicular.
 6. Apex of dorsal sepal abruptly acute.
 6. *L. peperomioides*
 6. Apex of dorsal sepal broadly obtuse.
 7. *L. saccosepala*

